

WELLCOME COLL

/(38)



22501691050

A Mirror for Medicine



Frontispiece: lithograph by F. Apicella, Naples 1884 (Wellcome Institute Library Iconographic Collections). In 1884 Robert Koch published in Leipzig his discovery of the cholera bacillus as observed through the microscope. In the same year F. Apicella published in Naples this print of the macroscopic view of cholera: human suffering, death, redemption and relief through belief. (For further commentary see p. 33.)

A Mirror for Medicine

**Some resources of the
Wellcome Institute
Library**

An Exhibition

Monday 19 October – Friday 18 December 1987

**Wellcome Institute for the History of Medicine
London
1987**

A note on the title of the exhibition

There is a long tradition of literary and pictorial 'mirrors'. Our title might therefore be regarded as an inheritor of the short title of the **Spiegl der Artzny** by Laurent Friesz of Colmar [Strassburg: J. Grüninger, 1519].

But before this there were many other such 'mirrors', notably the **Speculum majus** of Vincent of Beauvais [13th century], consisting of the 'Speculum historiale' (history of mankind to 1254), 'Speculum naturale' (encyclopaedia of nature), and 'Speculum doctrinale' comprising all the learned, liberal, practical and mechanical arts, including medicine.

The first illustrated book to be published in England was Caxton's **Myrrour of the worlde**, 1481, an encyclopaedia translated from the French, which explained, *inter alia*, 'how moche the erth hath of heyght, how moche in circuyte, and how thycke in the myddle'.

Wellcome Library
for the History
and Understanding
of Medicine

WELLCOME
COLLECTION

/ (38)

Contents

Introduction		7
Case 1	Western manuscripts	11
Case 2	Contemporary Medical Archives Centre	13
Case 3	Early printed books	15
Case 4	Post- 1850 medical texts	19
Case 5	Historical collection	21
Case 6	Oriental collections	24
Case 7	American collections	28
Case 8	Iconographic collections	32
Case 9	Conservation	35
Case 10-15		37
Opposite cases 1-5	Themes from the Iconographic collections	39
Above cases 10-15		39



Digitized by the Internet Archive
in 2014

<https://archive.org/details/b20456852>

INTRODUCTION

The present exhibition is designed to indicate the variety and richness of the material in the care of the Wellcome Institute. It is not intended to do more than point out to researchers the scope and historical depth of the Institute's primary and secondary sources in manuscript, printed and iconographic materials. Credit for the existence of these large, diverse, and unusual resources must be paid to the vision and drive of Sir Henry Wellcome [1853-1936], pharmaceutical magnate and philanthropist, and to his heirs the Wellcome Trustees who continue, among their numerous services to medicine, to fund the Institute and to support the study of medical history in the United Kingdom.

Only an indication of the scale and range of the Institute collections is possible within the compass of an exhibition, for the printed books alone number some 450,000 volumes and the periodicals since the mid-17th century total some 6,500 titles. Western manuscripts and the materials of the Contemporary Medical Archives Centre are an essential part of the primary sources which, with early printed books, post-1850 medical texts, the historical (or reference) collection, and the topographically distinct Oriental and American collections are all unsurpassed research sources in their fields. The diverse and numerous iconographic collections provide the indispensable visual record often absent from the manuscript or printed text. Material in all fields continues to be collected by gift, deposit or purchase.

The formation of the Institute's collection of **western manuscripts** began in 1897. It now contains more than 6,000 volumes and boxes of loose papers, and some 100,000 items of correspondence. It documents almost every aspect of medicine and science and incidentally provides research resources for a variety of other subjects. The manuscripts range in date from the 3rd century A.D. to 1900, and more than 800 of them were written before 1650. Their character is varied, from illuminated medieval manuscripts to the rough ledgers and account books of 19th century medical practitioners which are no less important as a source of historical information. More than twenty European languages are represented in the collection.

The **Contemporary Medical Archives Centre** was established within the Wellcome Institute in 1979 to locate, collect and catalogue the personal working papers of 20th century British medical practitioners and scientists in medical and ancillary disciplines. Such unpublished sources include

laboratory or lecture notes, surveys, case notes, memoranda, diaries and correspondence, as well as audio-visual material, drawings or photographs. Readers are advised of the holdings of the Centre by lists and reports regularly circulated to the National Register of Archives, major libraries, and interested societies and individuals. The Centre undertakes survey work on the archives and records of hospitals and other medical institutions and is concerned that such bodies should be aware of the need to preserve historical material. At present the Centre is compiling a comprehensive computerised register of information on hospital records in Britain with the help of grants from the King's Fund Centre.

The **early printed books** range in date from 1467 to 1850. The terminal date was chosen to take into account changes in medical science and practice in the mid-19th century, developments in printing technology, and the shift from the monograph to the periodical as a vehicle for medical publication. The basis of the collection is the books collected by and for Sir Henry Wellcome between 1897 and 1936. Many additions have been made since, most notably a substantial part of the library of the Medical Society of London purchased in 1984; but the character of the collection still recognisably reflects Sir Henry's interests. He had collected widely to create a general library of the history of mankind, with medicine seen as a central core. Judicious weeding in the decade after his death has refined this aim and imposed a greater homogeneity on the collection. The history of medicine forms the heart of the collection, including ancillary subjects such as pharmacy, chiropody and veterinary medicine, as well as popular medicine, 'fringe' medicine and quackery. There are also substantial holdings in the sciences, especially chemistry, biology and botany. Other subjects well represented are alchemy and the occult, travel, ethnography, cookery, general history and bibliography.

Medicine, like any human activity, is part of a continuum. The increasing specialist assurance of the scientific and rational mode is to be found in the wide range of the **modern medicine collection**, under rapid expansion during the past five years. Here may be identified the immediate genesis of the medicine of our own times, from clinical observation to pharmacopoeia, and from surgery to the discovery and use of the antibiotics.

The collections as a whole represent the catholicity of Sir Henry Wellcome's interests in the history of medicine. This catholicity, far from an accumulation of detail for its own sake, indicates an early understanding of the unity of mankind's attempts to seek and provide healing. Thus

the **historical (or reference) collection** reflects the range of Wellcome's interests not only in the narrow sense of medicine, but also in such areas as anthropology and ethnology, archaeology, art and religion, and in much else: for example, alchemy, as the ancestor of chemistry; astrology and astronomy, and medical botany; the ancestor of modern therapeutics. Other categories have of course since been added, while the core collections on the history of medicine and science have continued to expand rapidly. The historical collection serves as an essential key to the understanding and use of the primary collections of the Institute.

The **Oriental collection** includes over 11,000 manuscripts and some 3,000 books printed in oriental scripts. Forty-three different languages are represented, stretching from North Africa to the Far East. The span of time is wide. The earliest manuscripts – Egyptian demotic and hieratic papyri – date from the 6th century B.C. The materials used include bone, ivory, metal, and palm leaves besides paper and vellum. The collection is one of the major collections of oriental materials in Europe. As such, it includes many treasures. Because the history of medicine and science in oriental cultures cannot be separated from the civilizations of which it was a part, almost every related aspect of human endeavour of the East may here be studied in its primary sources.

The **American collections** include rare colonial and post-colonial texts from the Americas and the Caribbean, and materials from Europe reflecting curiosity in the new found world. Much interest centres on plant drugs as one of the items of trade that the invaders had come to seek; but natural history, medical practice, health administration, medicine for Caribbean slaves and a small collection of manuscripts primarily from Hispanoamerica are also included. The collection of rare primary texts is supported by much background bibliographical, biographical, periodical and secondary material. Amerindian medicine, both of the great Mesoamerican cultures as well as of the smaller tribes, is also well represented.

The **iconographic collections** provide materials for the pictorial record of medical history, in the form of paintings, prints, drawings, photographs and other appropriate media. Medical iconography was a keen interest of Sir Henry Wellcome: M.H. Spielmann's **The iconography of Andreas Vesalius** (1925) was one of the first major historical publications issued under his imprint; he personally bought pictures for the collection, especially in Spain; and in his will he directed his Trustees to add to them by the purchase of 'pictures and other works of art' pertaining to medical history.

Thanks to Wellcome's efforts, continued by his Trustees, the Wellcome Institute's iconographic collections, uneven though they are, are among the largest and most important of their kind in the world, and as such are consulted by historians from every continent. The geographic range is global, there is no cut-off date to restrict the chronological range, and the subject-range includes medical practice, medical science, and a profusion of matters which have a bearing on medical history (rat-catchers, railway-accidents, gymnastics, etc.). A catalogue of portraits of doctors and scientists (engravings and drawings only) by Renate Burgess was published in 1973, and other catalogues are in preparation.

The Institute's **conservation** enterprise, represented by three full-time conservators, which continually monitors materials and the factors leading to their decay, and which directs and undertakes appropriate measures for the amelioration of both, is an essential and unremitting part of the Wellcome activity. Our responsibility is not only to our own brief span of life, but to our heirs long hence, who, however strange and (doubtless) inimical their ideas, will still require the original evidence, and the material vehicle of that evidence, for their researches.

Diversity alone is not the purpose of this exhibition nor of the Institute, but the underlying unity that that diversity represents. The exhibition is of course intended to reflect the nature of the Wellcome collections, just as those collections themselves reflect as broad a picture of man and his healing as is yet attainable. The study of the history of medicine, necessarily selective as such studies must be – and ever dependent on the written and unwritten agenda of the viewer – cannot but reflect ourselves to ourselves in the mirror of the past. We may wish to ponder, as we see ourselves in that mirror, the multiform disguise of man and the paths that he chooses to mediate his healing.

Case 1

WESTERN MANUSCRIPTS

The collection of western manuscripts provides a unique resource for the study of European medicine and science from the 3rd century A.D. to recent times. The manuscripts on display show the wide range of the collection in both date and subject matter.

1. Pseudo-Galen. **Anathomia; Anathomia porci.** England. Mid 15th century.

Written in Middle English, this manuscript contains vulgarised versions of two anatomical texts. Both are attributed here to Galen. The first derives, in fact, from the **Practica** of Lanfranc of Milan, while the second is a version of the anatomy of the pig, attributed elsewhere to the Salernitan author Copho. The texts are finely illuminated, and accompanied by a remarkable series of illustrations showing the external surfaces of the body, the skeleton and nerves, 'wound man', and 'disease woman'.

2. **Ein buech zůsamen gezogen ... wie ain zeůghauss samb aller Monition anhaimisch gehalten soll werdñ** Germany. Mid 16th century.

This work on artillery describes how to keep an arsenal and ammunition in good order, and how to make gunpowder. It is illustrated with coloured drawings of fire-balls, bombs, incendiary arrows, cannons and other instruments of war. At the end are five folding plates showing an artillery train on the march.

3. Galileo Galilei [1564-1642]. **Letters to Galileo from various correspondents, 1592-1641.**

The western manuscripts include a large quantity of correspondence of doctors and scientists. The greater part dates from the 18th and 19th centuries, but amongst earlier correspondence is a group of forty original letters received by Galileo in the years 1592-1641. The earliest letter, dated 25 September 1592, is from the Paduan collector and patron of scholarship Gian Vincenzo Pinelli [1535-1601].

4. Caspar Magninus. **De linearum, nervorumque prognostico faciei humanae contingentium.** Italy. Mid 17th century.

This work on physiognomy is illustrated by numerous pen and wash drawings of heads. It purports to show how facial characteristics indicate a man's moral nature and reveal his fortune. The faces on f.20v indicate a bad moral character (above), and ingenuousness and probity (below). Those on f.21r show a changeable, deceitful character with unstable wealth (above), and riches and good fortune (below). Other predictions are more specific. One face foretells death in the galleys at the age of 39; another syphilis, loss of a testicle, and misfortune in marriage.

5. William Waylett [1728-1815]. List of women delivered by William Waylett, of Lydd, Kent, 1757-1815.

Waylett wrote his list at the back of a volume of medical recipes compiled by his grandfather William Waylett [1636-1702?]. In all he recorded 2,863 deliveries, of which he described 2,462 as 'natural', the remainder being mainly 'lingering', 'laborious', 'praeternatural', breech presentations or cases of twins. Waylett's normal fee, ten shillings and sixpence, varied according to distance and the patient's ability to pay.

6. Italian herbal. Mid 18th century.

This volume contains over 640 watercolour illustrations of plants, followed by a shorter section of flowers, fruits, quadrupeds, insects and sea creatures. The origin of the illustrations has not yet been identified, and there is no accompanying text. At the end of the manuscript (ff. 167-169) are three landscapes.

7. A surgeon-apothecary's ledger, 1774-80.

This ledger has recently been identified as that of William Lee [d.1780], of Odiham, Hants. It contains his accounts both for surgical treatments and for medicines dispensed. His patients reflect the whole range of local society, from the Rt. Hon. Welbore Ellis and Sir Charles Blunt to Thomas White, the Odiham butcher, and the poor of various parishes.

8. Oswald Beale Cooper [fl. 1825-33], M.R.C.S. Certificate of attendance at lectures on anatomy, physiology, pathology and surgery at the Theatre of Anatomy, Great Windmill Street, 1825-28.

Ten certificates awarded to Cooper during his medical education form part of the Institute's substantial, but as yet mainly uncatalogued, collection of diplomas. They show how a London medical education in the early nineteenth century was pieced together by attendance at a variety of public and private institutions. Amongst the latter was the Theatre of Anatomy, founded by William Hunter in Great Windmill Street. Cooper's certificate was signed by Herbert Mayo [1796-1852], physiologist and anatomist, and the surgeon Caesar Hawkins [1798-1884].

9. Thomas Herbert Bickerton [1857-1933]. Operations book and clinical photographs, c. 1886-c. 1901.

Bickerton was ophthalmic surgeon to the Liverpool Royal Infirmary from 1886 to 1919. His operation book records a variety of operations, iridectomies for glaucoma and iritis, tenotomies and re-adjustments of squints, enucleations of the eyeball, operations for cataract, lachrymal fistula and other conditions. Many of the clinical photographs relate to cases in the book. A few are 'before and after' photographs, including one endorsed 'Eyes put straight because his fiancée refused to marry him if he did not submit to an operation'.

Case 2

CONTEMPORARY MEDICAL ARCHIVES CENTRE

The Contemporary Medical Archives Centre was established in 1979 to collect and catalogue the papers and records of 20th century British medical practitioners and scientists, and to build up information on relevant collections held elsewhere. The archive reflects all aspects of modern medicine, from research leading to major scientific advances, through clinical practice and public health, to unorthodox and fringe medicine. Over 200 collections have been given to or deposited with the Centre.

The items on display in this case show the wide variety of material held by the Centre, both in format (manuscript letters, typescripts, photographs, and tape recordings) and in content (from the research papers of the eminent to routine administrative records).

Personal Papers

1. Sir Henry Dale, OM,GBE,FRS [1875-1968]

Notebooks on experiments at Hampstead, 1913-1916: from a small group of diverse papers pertaining to Dale, received from various hands at different dates. The bulk of Dale's papers are at the Royal Society.

2. Charles Joseph Singer, FRCP [1876-1960]

Letter to Singer from Sigmund Freud dated 31 Oct 1938. Singer was an historian of science and medicine; he and his wife, Dorothea, devoted much energy to helping Jewish refugees during the 1930s.

3. Noel G. Harris, FRCP [1897-1963]

Two drawings of cats by Louis Wain [1860-1939], artist famous for his pictures of cats: done while Wain was a patient at Springfield Hospital, where Dr Harris was on the medical staff, 1923-39.

General Collections

4. Prof Ronald Hare, MD [1899-1986]

Report by Hare on 'The scientific value of experiments of a bacteriological nature carried out in concentration camps in Germany during the War', with related correspondence, 1947-48. Hare's other papers include material on the discovery of penicillin.

5. Ivy Keess, MRCS,LRCP [1885?-1953?]

Dr Keess was a woman medical missionary practising in India. This **resolution**,

printed on silk, expressed the appreciation for her work of the communities in Quetta, Baluchistan (now in Pakistan).

Societies and Associations

6. Abortion Law Reform Association

Bundles of newspaper cuttings, c.1966–1972, from the Association archives which contain a large number of cuttings, some in albums. The abortion issue remains a source of much debate in the media; the Association itself continues to exist in order to make sure that the 1967 Act is implemented and to resist moves to restrict it.

7. Association of County Medical Officers and County Medical Officers' Group of the Society of Medical Officers of Health

Minutes of the Association (Executive Committee and General Meetings), September 1960–April 1961.

The records of most organisations include minutes, both of the central governing body and of executive and sub-committees. The Association of County Medical Officers was founded in 1902, and became defunct in 1974 as a result of local government re-organisation.

8. Lister Institute, formerly British Institute of Preventive Medicine

Photograph of 'Tom', the first horse in England inoculated for the production of diphtheria anti-toxin, and correspondence on the early hospital trials of the anti-toxin.

General Practice

9. GP Patient Records

Examples of typical case records held by an NHS general practitioner in East London, 1940s–1960s. They were designed to hold only a very limited amount of correspondence and diagnostic evidence.

10. GP Interviews

Tapes of interviews conducted by Professor Margot Jeffrerys and HESSIE SACHS with members of a group of general practices sharing a health centre in North London, the basis for **Re-thinking general practice: dilemmas in primary medical care** (Tavistock Publications, 1983).

Case 3

EARLY PRINTED BOOKS

The books exhibited demonstrate the range of topics covered by the collection, both in medicine and in other subjects. They range in date from the 15th to the 19th centuries and in physical form from substantial volumes to single broadsheets.

Venereal Disease

1. Joseph Gruenpeck [1473?-1532?]. **De pestilentiali scorra, sive mala de Franzos.** [Augsburg: J. Schaur. 1496.]

One of the earliest tracts on syphilis, written by a layman and suggesting an astrological origin for the disease. The woodcut on the title page shows a syphilitic corpse in the foreground while two afflicted women pray to the Virgin Mary and receive healing rays from the Christ child. At the same time the Virgin hands a crown to the German Emperor, armed as a crusader. This illustration is adapted from a similar woodcut published earlier in the year at Basle to accompany verses by Sebastian Brant.

Surgery

2. Hans von Gersdorf [c. 1455-1529]. **Feldtbuch der Wundartzney.** [Strassburg: H. Schott.] 1530.

First published in 1517. A textbook of surgery and related topics based on forty years of practical experience. It is notable for its striking illustrations of surgical instruments and techniques.

Metallurgy

3. Georgius Agricola [1494-1555]. **De re metallica libri XII.** Basle: Froben. 1556.

A comprehensive treatise on metallurgy, mining and refining. Georgius Agricola (Georg Bauer) practised as a physician in mining districts of Saxony and Bohemia and his work includes a section on the diseases of mineworkers. The work is lavishly illustrated. Shown here is an illustration of mechanisms for ventilating mineshafts.

Veterinary Medicine

4. Carlo Ruini [1530?-98]. **Anatomia del cavallo, infermità, et suoi rimedii.** Venice: F. Prati. 1618.

Ruini was a lawyer by profession. His work on the anatomy and diseases of

the horse, first published in Bologna in 1598, is the first book devoted to the anatomy of a single species other than man. The illustrations irresistibly recall those of Vesalius's great treatise on human anatomy of 1543.

Naval Medicine

5. Great Britain, Commissioners for Sick and Wounded Seamen. **An abstract of certain instructions.** [London. 1664.]

Instructions for the care of the sick during the Second Dutch War of 1665–67. The Commissioners (one of whom was the diarist John Evelyn) were appointed by the Privy Council in October 1664, in advance of the declaration of war. Certain ports were designated as reception centres and this copy of the instructions has a handwritten note of the appointment of Hugh Salesbury to act as clerk at Portsmouth.

Neurology

6. Thomas Willis [1621–75]. **Cerebri anatome.** London: J. Flesher for J. Martyn & J. Allestry. 1664.

A detailed and accurate account of the brain and nervous system, regarded as a landmark in the history of neurology and marking the transition between medieval and modern theories of brain function. It includes the first use of the Greek term *Νευρολογία*, later anglicised as Neurology. The illustrations were provided by Christopher Wren, then Professor of Astronomy at Oxford (see also Case 8), and Richard Lower, later a distinguished physiologist. Shown here is the illustration of the base of the brain and the 'circle of Willis'.

Proprietary Medicines

7. Lionel Lockyer [1599?–1672]. **Lockyer's pill, called by the name of Pilula Radiis Solis Extracta.** [London, after 1672.]

An advertisement for a proprietary preparation popular from the 1660s to the 19th century and advertised as a cure for a wide variety of diseases. Lockyer's wealth enabled him to leave instructions in his will for an elaborate funeral, generous charitable donations and the erection of an impressive monument, still a prominent feature in Southwark Cathedral.

Pharmacy

8. Claude Joseph Geoffroy [1685–1752]. **Specimen celeberrimis pharmacopoeis Parisiensibus exponendum.** Paris. 1703.

Produced to accompany the public preparation of three pharmaceutical compositions as the final act of qualification as an apothecary. Geoffroy was a member of a distinguished French pharmaceutical family. This engraved broadsheet, with

a headpiece by Sébastien Le Clerc showing Aesculapius recalling Hippolytus to life, is analogous to the pictorial theses popular in the 17th and 18th centuries, of which there are several medical and surgical examples.

Occupational Medicine

9. Bernardino Ramazzini [1633–1714]. **A treatise of the diseases of tradesmen ... now done in English.** London: A. Bell, etc. 1705.

The anonymous first English translation of Ramazzini's classic treatise on occupational diseases. The work was first published in Italian at Modena in 1700. It includes sections on the occupational diseases of surgeons, apothecaries, midwives, wetnurses and physicians.

Chiropody

10. Nicolas Laurent La Forest. **L'art de soigner les pieds.** Paris: The author, etc. 1782.

La Forest held a court appointment as 'Chirurgien-Pédicure' to the King and Royal Family. His book, first published in 1781, is regarded as the earliest significant work on chiropody and has been translated into German, Danish, Italian, Spanish and English. The edition of 1782, shown here, includes a section on the importance of the proper care of soldiers' feet. La Forest offered to train selected soldiers to serve as regimental chiropodists.

Hygiene

11. John Howard [1726–90]. **An account of the principal lazarettos in Europe.** Warrington: W. Eyres. 1789.

Howard's interest in prison hygiene was stimulated by his appointment as High Sheriff of Bedfordshire in 1773. The rest of his life was devoted to a campaign for the reform of conditions in prisons, hospitals and similar establishments. He made tours of inspection in Britain and Europe and his writings contain a wealth of information on matters of design, hygiene, etc. His account of the lazarettos is particularly concerned with plague and quarantine.

Travel

12. Mungo Park [1771–1806]. **Travels in the interior districts of Africa ... in the years 1795, 1796, and 1797.** London: W. Bulmer for the author. 1799.

Many great explorers and naturalists were originally trained as medical men. Mungo Park, a surgeon, explored the course of the Niger and Gambia and his account of his travels in 1795–97 includes information on the natural history and diseases of the area. He met his death in 1806 on a second expedition.

Military Medicine

13. Dominique Jean, Baron Larrey [1766-1842]. **Mémoires de chirurgie militaire, et campagnes.** 4 vols. Paris: J. Smith. 1812-17.

Larrey was chief surgeon to Napoleon and his memoirs cover the various campaigns of the Revolutionary and Napoleonic Wars. He organised the rapid provision of aid to the injured and introduced 'flying ambulances' for the removal of casualties from the battlefield. Shown here (from vol. I) are the panniers devised for the transport of the wounded by camel on Napoleon's campaign in Egypt and Syria in 1799.

Plastic Surgery

14. Joseph Constantine Carpue [1764-1846]. **An account of two successful operations for restoring a lost nose.** London: Longman. 1816.

The first modern European use of the technique of rhinoplasty, the restoration of a lost nose by grafting skin from another part of the body, in this case the forehead. The technique was practised in India in very early times. In 16th century Italy it was successfully performed by Tagliacozzi but then dropped out of use until in the late 18th century interest was revived by surgeons who had seen the operation in India. The patient in the case shown here was an Army officer who had lost much of his nose from the use of mercury for a liver complaint contracted in Egypt.

Case 4

MODERN MEDICINE COLLECTION

The Modern Medicine Collection contains the Wellcome Library's holdings of printed medical and scientific texts published after 1850. Many different kinds of publication are represented: clinical manuals, research reports, statistical surveys, 'family doctor' books, pharmacopoeias, government documents, suppliers' catalogues, as well as the standard professional journals and a wide selection of pamphlets and offprints.

The collection is still undergoing physical organisation and cataloguing in order to maximise its exploitation. It is being actively extended both by purchase and donation.

The items shown in this case are selected to demonstrate the great variety of subjects covered.

Pharmacology and medical botany

1. Robert Bentley [1825-93], and Henry Trimen [1843-96]. **Medicinal plants: being descriptions with original figures of the principal plants employed in medicine and an account of the characters, properties and uses of their parts and products of medicinal value.** 4 vols. London: J. & A. Churchill. 1880.

2. **The British pharmacopoeia, 1932.** London: Constable for the General Medical Council, 1932.

The library holds all editions of the **British Pharmacopoeia** from 1864 to the current edition. In addition, it has nearly complete runs of the **British pharmaceutical codex** and of Martindale's **Extra pharmacopoeia**, as well as a varied selection of foreign pharmacopoeias.

3. Sir William Osler [1849-1919]. **The principles and practice of medicine: designed for the use of practitioners and students of medicine.** 8th ed. New York and London: D. Appleton. 1912 (1913 printing).

The library holds 16 editions of this famous textbook, from 1892 to 1947.

Cardiology

5. Sir Thomas Lewis [1881-1945]. **Diseases of the heart, described for practitioners and students.** London: Macmillan. 1933.

Haematology

6. Dame Janet Maria Vaughan [b.1899]. **The anaemias.** London: Oxford University Press. 1934.

Hepatology

7. Sir Humphry Rolleston [1862-1944], and Sir John William McNee [1887-1984]. **Diseases of the liver, gall-bladder and bile-ducts.** 3rd ed. London: Macmillan. 1929.

Tuberculosis

8. Robert Young Keers [1908-82], and Brian George Rigden. **Pulmonary tuberculosis: a handbook for students and practitioners.** Edinburgh: E. & S. Livingstone. 1945.

9. Frederick Rufenacht Walters [1857-1946]. **Sanatoria for consumptives in various parts of the world (France, Germany, Norway, Russia, Switzerland, the United States and the British Possessions): a critical and detailed description together with an exposition of the open air or hygienic treatment of phthisis.** London: Swan Sonnenschein. 1899.

Sports medicine

10. Charles Brehmer Heald [1882-1974]. **Injuries and sport: a general guide for the practitioner.** London: Oxford University Press. 1931.

Gynaecology and obstetrics

11. Francis James Browne [1879-1963]. **Antenatal and postnatal care.** 6th ed. London: J. & A. Churchill. 1946 (1947 printing).

12. Anthony John Capper Magian [1878-1956]. **The practitioner's manual of gynaecology.** London: Heinemann Medical. 1922.

Psychiatry and neurology

13. Desmond Curran [1903-85] and Eric Guttman [1896-1948]. **Psychological medicine: a short introduction to psychiatry: with an appendix on psychiatry associated with war conditions.** 2nd ed. Edinburgh: E. & S. Livingstone. 1945.

14. Sir William Richard Gowers [1845-1915]. **A manual of diseases of the nervous system.** 2 vols. London: J. & A. Churchill. 1886-1888.

On display is volume I: Diseases of the spinal cord and nerves.

Public health

15. Chelsea (Metropolitan Borough). **Annual report of the Medical Officer of Health for Chelsea, 1938** (by W.H. Leslie McCarthy).

16. Sir William George Savage [1872-1961]. **Milk and the public health.** London: Macmillan. 1912.

Case 5

HISTORICAL COLLECTION

The Historical Collection comprises some 50,000 post-1850 secondary sources on the history of medicine and related sciences. Much of the collection is on open access in the Reading Room of the Library and in the Periodicals Room. Some 500 current serials are received in a wide range of languages as well as offprints sent to the Library by authors. New accessions average 100 monographs per month and cover such subjects as population studies, social history, biography, medical botany, anthropology, witchcraft and general bibliography as well as more central studies on the history of medicine and science. Shown here are examples of the various categories.

Biography

1. John Chancellor. **Charles Darwin**. London: Weidenfeld and Nicolson. 1973.

The Library buys widely in the field of biography – not only lives of individual physicians and surgeons, but lives of famous patients both individual and collective – as well as general collected biography and university and school registers. The Library holds a complete run of the **Medical Directory**, directories of societies, and post office directories, all of which aid biographical research.

Histories of medicine

2. Jean Starobinski. **Geschichte der Medizin**. Lausanne: Erik Nitsche. 1963. Histories of medicine, both general and national, and histories of systems of medicine such as Greek, Roman, Chinese, Indian, Egyptian, form a substantial part of the Historical Collection.

Histories of specialties

3. Louis Dulieu. **La pharmacie à Montpellier**. Avignon: Presses Universelles. 1973.

Included in the Historical Collection are histories of various specialties such as pharmacy, nutrition, orthopaedics, ophthalmology, dermatology, venereal diseases, obstetrics, gynaecology, surgery and veterinary medicine.

Histories of Institutions

4. **Sint-Janshospitaal Brugge 1188/1976**. [Exhibition catalogue.] Bruges: Commissie van Openbare Onderstand. 1976.

Translations and editions of texts

5. Galen. **On prognosis: edition, translation, and commentary by Vivian Nutton.** Berlin: Akademie Verlag. 1979.

Closely linked with the histories of systems of medicine are the modern editions and translations of classic texts.

Library catalogues

6. Stanford University Libraries. **The Barchas Collection: the making of modern science.** Stanford, Calif.: Stanford University Libraries. 1985.

In addition to the published catalogues of its own early printed books, the Library holds a large number of catalogues of other libraries, both general and medical; for example, the British Library's catalogue of printed books and the catalogue of the National Library of Medicine, Washington. The Library also holds catalogues of manuscripts, archives and local records.

Dictionaries

7. Bengt I. Lindskog and Bengt L. Zetterberg. **Medicinsk terminologi lexikon.** Stockholm: Nordiska Bokhandelns Förlag. 1981.

The Library possesses an important collection of dictionaries from the earliest period onwards, both general and medical, including the **Thesaurus Linguae Latinae** (still being published) and the twenty-one volumes of the **Oxford English Dictionary**.

Bibliography

8. Marc Drogin. **Medieval calligraphy: its history and technique.** Montclair, N.J.: Allanheld, Osmun & Co. 1980.

A large section of the collection is devoted to general bibliography including histories of printing and publishing, book illustration, binding, water-marks and paper manufacture.

General history

9. E. Royston Pike. **Human documents of the Lloyd George era.** London: Allen & Unwin. 1972.

As background reading for students studying the history of medicine the Library has built up a collection of general historical reference works, which includes the standard Oxford and Cambridge histories well as other national histories.

Interface Subjects

10. Venetia Newall. **An egg at Easter: a folklore study.** London: Routledge & Kegan Paul. 1971.

This is an example of the wide range of subject matter to be found in the Historical Collection. Under the umbrella term 'history of medicine' come such topics as archaeology, folklore, art, religion, literature, all of which can be studied from the medical viewpoint.

Facsimile reprints

11. Hieronymus von Brunschwig. **Experyence of the warke of surgeri (1525)**. Amsterdam: Theatrum orbis terrarum. 1973.

Parallel to the collection of edited and translated texts is the increasing number of facsimile reprints of texts from the 16th, 17th and 18th centuries. Even where the Library possesses the original it is usually an advantage to make a facsimile available on the open shelves.

Periodical Publications of the Wellcome Institute

12. A recent issue of **Medical history** published quarterly by the Wellcome Institute.

13. **Current work in the history of medicine**

A quarterly bibliography of the history of medicine published by the Wellcome Institute.

Case 6

ORIENTAL COLLECTION

The collection of oriental manuscripts and printed books – comprising over 11,000 manuscripts and some 3,000 printed books in 43 different languages – is one of the most important in Europe. While medical history is central to the collection, many cognate topics are represented. Variety of subject matter and language is matched by diversity of medium. Besides paper and vellum, the collection includes manuscripts written on bamboo, bone, ivory, metal, tree bark and palm leaf. This small display indicates something of the diversity and variety of the collection.

1. Amulets

Amulets were employed to protect man or his possessions from evil influences, including illness. The amulet is found in the East and in the West, among both tribal and settled peoples; and it exists to the present day. Assyrians and Egyptians, Greeks and Romans, Jews and Christians, fostered this ancient tradition – which, among the Jews, has a history of some three thousand years. Three Hebrew medical amulets are displayed:

- i. **Amulet for a fruitful marriage.** c.17th century; written in Italy in iron gall ink on paper.
- ii. **Amulet for the protection of Bela daughter of Rachel from plague.** c.18th century; vellum.
- iii. **Amulet for the protection of Moses David son of Esther from plague.** c.18th century; vellum contained in parchment case.

2. Medical notebook

This beautifully copied Hebrew manuscript, probably the notebook of a physician called Elhanan (f.11v), contains marginal annotations. Patients are named, including Moses, the writer's son (f. 10r), and Dulcita his wife (ff. 15v & 16v). The opening shown includes a remedy for pain in the ilium. Copied c.17th/18th century, in a fine Italian hand.

3. **Birkot ha-milah u-minhag wa-sepher ha-milah ke-phi ha-nahug ba-z'ot ha-kehillah.** London.

'Blessings of circumcision and the conduct and service of circumcision as it is led in this congregation ... London'. This finely executed Hebrew manuscript was copied by Isaac Luria in London during the late 18th or early 19th centuries: it lays out the form of service for the rite of circumcision to be followed by a London congregation.

4. **Sharḥ Qānūnča.** 'Commentary on K. Qānūnča,' a resumé by al-Jaghminī of K. al-Qānūn.

K. Qānūnča, a once popular medical work written by Maḥmūd b. 'Umar al-Jaghminī [d. 1344]. The Arabic commentary shown here was written by 'Alī b. Kamāl al-Dīn Maḥmūd Muḥammad Ṭāhir of Constantinople. It is transcribed in the Naskh style and dedicated to the Ottoman Sulṭān, Bāyazīd Khan b. Muḥammad Khān b. Murād Khān.

5. 'Alī b. al-'Abbās al-Majūsī (fl. 10th century). **Kāmil al-sinā'a al-ṭibbiyah,** 'Complete art of medicine'.

Undated (14th century) Arabic manuscript copied by Ḥannā, a physician, in Naskh and containing Book I (treatises one to five inclusive). 'Alī b. al-'Abbās al-Majūsī, commonly known in the west as Haly Abbas, dedicated his great medical work to the ruler of Shiraz 'Aḍud al-Dawla. For this reason the work is often known by its alternative title – **al-Malakī** – 'the royal book', known in medieval Latin translations as **Liber Regius**.

The table of contents belonging to the fifth book, relating to the effect of environment on health, is displayed.

6. **Ikhtiyārāt-i Badī'**

Persian manuscript containing a materia medica composed by Zayn-al-Dīn 'Alī b. al-Ḥusayn al-Anṣārī [1329–1403] and completed in 1368/9. It comprises two parts, the first on simple medicaments in alphabetical order, the second on compound medicaments in sixteen sections. The manuscript exhibited was copied in 1669/70 in Naskh script within gold rules. The opening displayed is from the first section. It describes simple medicines beginning with the Arabic letter *sh*.

7. Svāmi Hamsasvarūpa, **Ṣaṭcakraṇirūpaṇacitram** (Muzaffarpur, Bihar: Trikuṭīvilas Press, [n.d.].)

The **Ṣaṭcakraṇirūpaṇacitram** or 'pictures illustrating the six cakras' is a relatively modern edition of a medieval Sanskrit work, probably published at the turn of the century. The illustrations and commentary demonstrate particularly clearly the collision of two completely different scientific world views. On the one hand we have the modern medical view of human anatomy, imported to India by the East India Company doctors and British education, while on the other there is the yogic view of the body as containing a series of *cakras*. A *cakra* (literally 'wheel' or 'circle') is described both as a physical point of junction in the vertical axis of the body (e.g., the upper cerebrum as illustrated) and as the locus of particular physical and spiritual experiences, in this case the sense of spiritual liberation.

The *cakra* of the 'thousand-petalled lotus' in the right-hand illustration has the full moon in the middle of the lotus, enclosing a triangle. It is here that the final integration of the person is believed to take place. The path of energies from lower in the body is called the *brahmanāḍī*, 'conduit of the spirit', and is

shown as the grey line rising from the nose to the forehead. The lotus petals are inscribed with the letters of the Sanskrit alphabet.

By presenting the yogic and anatomical models side by side, the editor plainly claims a status for the *cakras* in modern anatomical terms, a view elaborated in his Hindī introduction.

8. Cāmuṇḍa Kāyastha, **Jvaratimirabhāskara**. Sanskrit paper manuscript dated A.D. 1880.

The **Jvaratimirabhāskara** or 'Sunlight on the shadow of fever', composed in 1490, is a monograph on fevers arranged in sixteen chapters. Chapter one deals with the mythical origin of fever and its names; chapter two describes the examination of the pulse and the urine, and the value of fasting; chapters three and four describe fever medicines; chapters five to seven are concerned with the symptoms of fevers in relation to the humours or combinations of humours producing them; chapter eight is about fevers caused by trauma, lust, anger, grief, fear and poisoning, etc.; chapters nine and ten describe certain irregular fevers; chapter eleven describes fevers affecting the seven types of tissue in the body; chapter twelve discusses fevers of long standing; chapter thirteen is about a number of therapeutic measures; chapter fourteen is about the symptoms and treatment of twelve particular fevers; chapter fifteen deals with the influence of the lunar mansions on the course of fever, and religious observances for averting fever; the last chapter describes ten types of complication which can arise in fever.

9. Ling-t'ai i-hsiang t'u

This volume was compiled in China by the Jesuit father Ferdinand Verbiest [1623-88]. It illustrates the astronomical instruments installed by the Jesuits at the observatory which they built in Peking for the Emperor K'ang-hsi. These instruments were modelled on those depicted in Tycho Brahe's **Astronomiae Instauratae Mechanica** (1598) which influenced many generations of later astronomers.

Exhibited in panoramic display are six of the 105 woodcuts published in Peking in 1674. These illustrations provide valuable insights on the technical achievements of the Jesuits in Peking and demonstrate how 16th and 17th century craftsmen constructed their instruments. Although carried out in the East, the technology was Western.

10. Dhammacakkappavattana sutra sannaya

The Sinhalese paraphrase of the Pali text of **Dhammacakkappavattana sutta**, the first sermon of the Buddha. This Sinhalese manuscript was transcribed on to palm leaves during the 19th century. It is held within wooden boards painted with illustrations of the contents of the manuscript. The inside of both covers exhibited show the sittāra or traditional painting of Prince Siddhārtha leaving Princess Yasodhārā and the newly born Prince Rāḥula. Subsequent incidents are depicted, such as the crossing of the Nerañjarā river, and the Brahmārādhana, a

or the request made by Sahampati Brahma to Buddha to preach the Dhamma.

11. **Samut tamrā thāi daō**, 'Manual of prognostication from the sun, moon and stars.'

Thai manuscript transcribed on paper in the form of a folding book c.1880. The orange spheres represent the sun, the yellow the moon: the astrological significance of each is explained in the text to the right of each illustration. Three examples are displayed:

- i. Sun with clouds and 'ear' appended above indicate that a woman will plot to kill the ruler.
- ii. Moon with frog in its centre indicates that the land will decline and that the people will eat their own flesh: presumably a famine is foreseen.
- iii. Flames surrounding the lunar sphere indicate disorder throughout the land; but if the flames are yellow, as here, the ruler will obtain great fortune. If, on the other hand, the flames are white or black a period of disease can be expected.

Case 7

THE AMERICAN COLLECTIONS

Drugs, precious stones, and gold predominated in the minds of the conquistadores. Much exists therefore in the collections on *materia medica*, both from numerous European expeditions to the Americas and from the conquered Amerindian. By the late 18th century, the **Spanish** had fully settled and bureaucratised their vast dominions, and the ideas of the Enlightenment flourished: caesarean section was recommended; the health and social sequelae of smallpox epidemics were ameliorated by viceregal and ecclesiastical administrative provision; and instructions on vaccination, following Jenner's discovery, were published by official gazette.

In **Anglo-america** an artisan culture became middle-class and self-determining, and, in 1776, it became politically independent of its country of origin. Benjamin Rush devised his heroic treatment for outbreaks of yellow fever in Philadelphia, and the **United States Pharmacopoeia** was born in 1820.

Throughout the Americas and the Caribbean the **Amerindian** populations had been ravaged by European epidemics, harsh labour laws, disruption of social and land-use patterns, and in some areas by deliberate extermination. Such disruptions are symbolised by the voluminous journals of Arthur Wellington Clah, a Tsimshian Indian contact of Sir Henry Wellcome.

Yet more disrupted – and highly expendable – for at least the first hundred years of the tropical plantations, was the **slave**, forcibly transplanted from African to American soil. By the late 18th century, with the slave-trade under threat and later forbidden, owners were forced to breed from stock and to improve conditions. Medicines became a commonplace on plantations, and so did maternity and general hospitals, and attendance by physicians. By 1834, the date of abolition of slavery within the British Empire, conditions had improved.

1. *Badianus Codex. Libellus de medicinalibus Indorum herbis.* Colegio de Tlaltelolco, Mexico. 1552. (Facsimile (1964) of MS Barb. Lat. 241 in the Vatican Library).

Written and probably illustrated by Martinez de la Cruz, an Indian physician of the College of Santa Cruz at Tlaltelolco, and translated into Latin by his Indian colleague, Juannes Badianus, the manuscript describes and illustrates 184 medicinal plants used by the Aztecs.

The left-hand page illustrates a species of *Ipomoea*, possibly the common sweet potato, used 'for heat in the heart' (heartburn?); and the right-hand page two species of *datura*, containing the narcotic stramonium, 'for pain in the side'. Species of *datura* were used for a variety of conditions by the Aztec physicians, whose therapeutics were highly developed.

2. Francisco Ximénez. **Quatro libros de la naturaleza, y virtudes de las plantas, y animales que estan recevidos en el uso de medicina en la Nueva España.** Mexico: Widow of D. López Dávalos. 1615.

The first separate appearance in print of a significant part of Francisco Hernández's great *Rerum medicarum Novae Hispaniae thesaurus*, Rome (1628-51), on the medicinal plants of New Spain. Part of Ximénez's purpose, as editor and translator, as with many early colonial medical publications, was to provide informed assistance for those far from physicians or apothecaries. He adds many useful asides to his original text from his personal experience.

3. Willem Piso [c.1611-1678] and Georg Markgraf [1610-44]. **De Indiae utriusque re naturali et medica.** Amsterdam: L. & D Elzevir. 1658.

The recasting by Piso of Markgraf's great work (1648) on the natural history of Dutch-owned Brazil included his illustrated commentary on the use of the ipecacuanha root (p.231). Through these researchers the root entered the European pharmacopoeias as a specific against what is now known as amoebic dysentery.

This edition by the highly successful Dutch physician Willem Piso was evidently intended as a handbook of tropical medicine, pharmacology, and natural history. His share and Markgraf's covered the Americas, and the addition of the complete works of Jacob Bontius [1592-1631] covered the East Indies. Other American remedies, such as sarsaparilla, mechoacan root (jalap), sassafras and guaiacum, are discussed. Bontius and Piso were pioneers of tropical medicine; Markgraf, prodigiously if all too briefly energetic in mathematics, astronomy, meteorology, natural science, medicine, and illustration, remains an outstanding figure in science.

4. Mexico. Junta Principal de Caridad. **Extracto de las Providencias dictadas por la Junta principal de Caridad Estados que manifiestan sus piadosos efectos en la Epidemia de Viruelas que hubo en la Ciudad de Mexico el ano de 1797.** Mexico, 1798.

This concluding report of the Secretary of the Principal Charity Board, dated 28 April 1798, summarises the energetic action undertaken by the ecclesiastical, civil and voluntary bodies to ameliorate the effects of the great smallpox epidemic of the City of Mexico 1797-98. It claimed over 7,000 lives, a mortality of some 5% of the city population.

5. Francisco González Laguna. **El zelo sacerdotal para con los niños no-nacidos**. Lima: Imprenta de los Niños Expósitos. 1781.

This small work instructing priests on caesarean section may be taken as a type of numerous Enlightenment attempts to improve imperial medical provision from the metropolis. It emphasises signs indicating the death of the mother, describes the operation in simple terms, and urges the desirability for mothers to nurse their own offspring. Similar works on caesarean section were published within the Spanish Empire in accordance with the policy of Carlos III [1759–88], first pursued in his Kingdom of Naples (as Carlos IV of Naples, 1734–50).

The author, a distinguished priest, is regarded as one of the founders of the Enlightenment in Lima.

6. **Gazetas de Mexico**. 16 vols. Mexico: F. de Zúñiga y Ontiveros [&c]. 1784–1809.

One of a series of sets of the official journal of New Spain (considerably larger than present day Mexico), running – sporadically – from 1722 to 1821, this series of the **Gazeta** remains a primary printed source for general information on the colony. It includes viceregal proclamations, minting and trade returns, shipping news, major obituaries, and news and comments of medical interest; and especially notices and instructions on vaccination (1804, XII (num.13), p. 97) during the years of the valiant world-encircling Vaccination Expedition (1803–6) of Carlos IV of Spain.

7. Benjamin Rush [1745–1813]. **An account of the bilious remitting yellow fever as it appeared in the city of Philadelphia in the year 1793**. Philadelphia: T. Dobson. 1794.

Yellow fever, understandably thought by Rush to be ‘propagated chiefly by exhalation from the putrid coffee’ on the Philadelphian wharves, was attacked by this observant and determined physician by means of his stern depleting regimen – heroic purges of calomel and jalap (pp. 200–201) in order to raise the pulse – with copious bleeding, cool air, cold drinks, temperate vegetable diet, and topical application of cold water. His method claimed, perhaps justly, considerable success.

8. **Pharmacopoeia of the United States of America**. Boston: Wells and Lilly for C. Ewer. 1820.

The **Pharmacopoeia**, which signals the independence of medicine in the U.S.A., was drafted by a governmentally-sponsored committee set up following a submission in 1817 to the New York County Medical Society. The preface records how in the United States ‘the evil of irregularity and uncertainty in the preparation of medicines has been felt with peculiar weight’. The formulary is both traditional (in both Latin and English) and exploratory (American plants are substituted for European where appropriate).

9. Arthur Wellington Clah [1831–1916]. **Journals, account-books and note-books of a Tsimshian Indian**. 72 items. Port Simpson, B.C., Canada &c.,

and New Metlakahtla, Alaska, U.S.A., 1859-1916.

A convert of the celebrated missionary William Duncan [1832-1918], friend of Henry Wellcome, Clah saved Duncan's life from disaffected tribesmen. Ff.1v and 2r of vol.I of Clah's voluminous journal record the murder of his father and the smallpox visitation of 1836. Intended as a history of the Tsimshian people, the journal includes material on Clah's life and work, on epidemics, on residual potlatch ceremonies, and on Indian relations with the white man.

Clah transferred to New Metlakahtla (Alaska) with Duncan in 1887, a resettlement of his people supported generously by Henry Wellcome.

10. Thomas Dancer [c.1750-1811]. **The medical assistant; or Jamaica practice of physic: designed chiefly for the use of families and plantations.** Kingston, Jamaica: A. Aikman. 1801.

With its general introductory essay on medicine and its descriptions and treatments of the diseases common to Jamaica and the West Indies among both planters and slaves, this work by the irascible Island Botanist is a remarkably complete compendium of contemporary tropical practice.

The subsequent editions of 1809 and 1819 aimed to keep the material up to date. All editions include the 'List of medicines requisite for a family, or for a plantation containing one hundred negroes' (pp. 348-9), and the list of 'Jamaica simples; or, country remedies'.

Background: The wood-engraving from W. Piso and G. Markgraf, **Historia naturalis Brasiliae**, Amsterdam, 1648, p.50, illustrates a bullock-powered mill. A slave treadmill, or more benevolently, a watermill, were the alternatives. The sugarmill and the slavery it demanded represent the tragic background to the exploitation of the Caribbean and the surrounding tropical mainlands. Slavery meant rapid development of habitat inimical to the European. It also meant dire and pitiable conditions for the slave - not to be rectified until the 19th century.

Case 8

ICONOGRAPHIC COLLECTIONS

The paintings, prints, drawings and photographs exhibited in this case provide a conspectus of the media represented in the iconographic collections. Two recent acquisitions are: the portrait of Sir Ivan Magill, received as a gift in 1984, and the painting of Florence Nightingale and the Bracebridges, purchased in 1985. In the cases opposite, items are arranged thematically, according to geographical areas (10-11), genres (12-13), and subjects (14-15). Exhibits on the north walls (above cases 10-15 and opposite cases 1-5) are selected for their more general interest.

1. An operation for 'pierre de tête.' Lead pencil on vellum by Pieter Jansz. Quast, 1645.

This spirited drawing of an operator making a savage incision in the head of an apparently compliant patient may appear to show part of the ancient and universal operation of trepanning, but its actual subject is unique to Netherlandish medicine, language, and arts of the sixteenth and seventeenth centuries. The operator is shown as an extractor of bladder-stones (one of them is shown dangling from his knife-handle). In depicting him as preparing to extract such a stone from the head, the author of the drawing alludes to a Dutch proverb 'he has a stone in the head', meaning 'he is mad'.

The drawing bears the PQ monogram of Pieter Jansz. Quast [Amsterdam 1606-1647] on the half-barrel on the left, together with the date 1645.

2. An artificial tomb in the museum of Frederik Ruysch. Engraving by Cornelius Huyberts, c. 1709.

The engraving shows an exhibit on the second shelf of the eighth cabinet in the museum of Frederik Ruysch [1638-1731] in Amsterdam. Inside the tomb was the mummified body of a 5-month fetus born c.1689, whose opened skull, showing the *dura mater*, is seen protruding on the lower left. Above, the tomb is 'planted' with arteries and arterioles which were injected with red wax giving the effect, in the original, of a forest of coral. On each side is the skeleton of a twin 7-month fetus, who mourns his fellow in the tomb and wipes away his tears with a handkerchief of capillary tissue. The exhibit combines lessons from fields now regarded as separate and independent: embryology, anatomical technique, the moral tradition of the *memento mori* and the art of the baroque still-life. Ruysch intended it to remind us of the frailty of human life, but it also reminds the modern viewer of the frailty of the divisions between different branches of learning, a particularly apt lesson for the medical historian.

3. Two views of a pathological specimen. Pen and ink and water colour, bearing signatures of Thomas Willis [1621-1675] and Sir Christopher Wren [1632-1723].

Thomas Willis, Sedleian Professor of Natural Philosophy at Oxford 1660-1675, and Sir Christopher Wren, the distinguished architect and Savilian Professor of Astronomy at Oxford 1661-1673, worked together on several occasions, notably in the spring of 1663 when Wren made drawings of the brain for Willis's *Cerebri anatome* of 1664 (see Case 3).

The present watercolour has often served as a test-piece for pathologists visiting the Wellcome Institute Library, and the consensus seems to be that it shows a portion of the small intestine marked by shallow longitudinal ulcers characteristic of typhoid fever.

4. A view of the heart with pathological features. Chromolithograph after W. Gummelt, 1892.

This is one in a series of lithographs produced between 1892 and 1904 by staff of the City Hospital at Hamburg-Eppendorf, under the direction of Alfred Kast, Director of the Hospital 1888-92 and professor of medicine at Breslau 1892-1903. The delicate watercolours of the artist Gummelt, made immediately after the patient's death, are translated into lithographs printed in fifteen ink colours. The present example shows a posterior view of the heart of a sailor who died in the City Hospital, Hamburg-Eppendorf, in January 1892, aged 37 years. The lower part of the lithograph shows the two ventricles, the left massively enlarged and the right of normal magnitude. The aorta, above, is grossly enlarged by an aneurysm. The sailor had contracted syphilis in 1875, and this probably caused his heart-disease, though Kast was unaware of the connection.

5. Ex-voto offering on behalf of the people of Naples to the Virgin and Child and Saints Gaetano, Roch, Martha and Januarius. Lithograph by F. Apicella, 1884.

In 1884 Naples fell victim to the cholera epidemic which had been occurring sporadically throughout Europe. Between 21 August and 30 September 1884 alone, 10,957 cases with 5,778 deaths were reported in a population of 500,000. In the lower half of the print onlookers express horror at the violence of the symptoms suffered by victims, and sorrow during administration of last rites to the prostrate dying man. The location of these events in Naples is indicated by the smoking Mount Vesuvius in the lower left and by the inscription beneath the image.

Four saints flank the Virgin and Child: to the outer right, S. Januarius holds the phial of his blood which is still preserved in Naples Cathedral; above him, S. Martha; to the lower left, S. Gaetano, a local saint; above him, S. Roch, the plague-saint. Through the medium of the lithograph this heavenly host is entreated to intercede on behalf of the people of Naples and to free its inhabitants, shown below in torment, from the terrible grip of cholera.

6. Portrait of a deceased man. Daguerreotype by an anonymous photographer, c. 1850.

Serving as a visual memento, photographs of the dead helped the Victorians to come to terms with mortality. Such photographs should be considered in the larger context of practices such as elaborate funerals, prescribed periods for mourning dress, and black-edged mourning notepaper. Particularly in the early decades of photography, the 1840s and 1850s, such photographs would have represented the only visual record of a paterfamilias who had never sat for his portrait in any other medium.

7. Florence Nightingale, Charles Holte Bracebridge and Selina Bracebridge in the Crimea. Oil painting on canvas by Jerry Barrett, 1859.

When Florence Nightingale embarked for the Crimea on 21 October 1854, she was accompanied by her long-standing friends and travelling-companions, Charles Holte Bracebridge and his wife Selina, who served as her confidants and advocates in her many struggles and who nursed her during her illness in 1855. After returning to England, Charles Bracebridge acted as Miss Nightingale's unauthorised spokesman. She expressed her displeasure and their friendship subsequently cooled, but on his death in 1872 she was moved to pay tribute to his noble character, and on Mrs Bracebridge's death in 1874 to record that 'she was more than a mother to me'.

The Brighton painter Jerry Barrett [1824–1906], who painted this picture, travelled to the Crimea to depict Florence Nightingale, who is shown here with her companions in a Turkish setting.

The scene represented probably dates from 1855. In 1859, the date of the painting, therefore, Barrett would have been working from drawings executed four years before.

8. Portrait of Sir Ivan Magill, KCVO,FRCS [1888–1986] on his 95th birthday, 1983. Colour photograph by an unknown photographer.

Sir Ivan Magill qualified in medicine at Queen's University, Belfast in 1913. In the course of his long career in anaesthetics he made many innovations including a two-catheter approach which prevented blood from bubbling in the patient's mouth and the anaesthetic from affecting the surgeon; a small portable anaesthetic machine; the 'Magill attachment'; endobronchial blockers; and selective visual bronchial intubation for lung surgery.

At the forefront of his profession, Sir Ivan helped to form the Association of Anaesthetists (1932). In 1945 he was awarded an honorary DSc degree from Queen's University, Belfast, which, many years before, had turned down his MD thesis on endotracheal anaesthesia on the ground that it was unlikely to be of much value.

Case 9

CONSERVATION

There would be no point in spending many weeks repairing a volume if after a few years the paper became acidic or if the binding began to decay. Many years of research have therefore gone into every aspect of papers, adhesives, solvents, leather and linen. Not only do they have to endure hard usage, but they must also withstand changes in climatic conditions, numerous atmospheric pollutants, and excessive light. The materials used in conserving a book are usually of natural origin and are always of the highest quality.

The conservator has to combine appropriateness of materials, the aesthetic appearance and historic structure of the completed work, its durability, and even the reversibility of the processes used, in order to ensure the best possible result for present and future use.

The materials displayed are examples of those most commonly used in conservation.

An Introduction to Conservation Materials

1. Handmade Papers

A selection of Western and Islamic handmade papers used in the conservation of documents and in certain aspects of book conservation

2. Japanese papers and tissues

These papers, handmade from varying lengths of mulberry fibres, are used in the restoration of manuscripts, prints, drawings and watercolours.

3. Heatset tissues

Machine-made tissue for contemporary archive conservation is coated on one side with an acrylic-based adhesive and is applied with heat and pressure.

4. Photographic materials

Silversafe Photo Store is used for the conservation and archival storage of silver-image photographic prints and negatives. It is machine-made from pure cotton fibre without an alkaline buffer; it is acid-free and sulphur-reducible.

5. Millboard and acid-free board

Millboard is used exclusively for books. Various thicknesses are made in order to provide for the many sizes and forms of books. Acid-free board is used to make boxes and slip-cases for those volumes which warrant it.

6. Leather

Leather used in conservation is usually goat, calf or pig skin. For many years

calf was preferred but research has shown that it absorbs moisture more readily than goat or pig, and that it therefore absorbs such harmful chemicals from the atmosphere as sulphur dioxide. Goatskin – flexible and reasonably hardwearing – is now the most widespread fine-binding medium. Alum-tawed pigskin is the most durable of skins but it is extremely difficult to work.

7. Vellum and parchment

Vellum is also an extremely durable binding medium and, like pigskin, it is difficult to work. True vellum is the unsplit skin of a calf; it is cleaned, preserved by soaking in a lime solution, scraped to remove the hair and dried under tension on a frame. Parchment, the product of split sheepskin, undergoes the same treatment.

8. Tapes, thread, cords

The sewing of any book is the most important of any technique used in conserving a book. If the sewing structure is incorrect it can create many additional problems. Materials used, i.e. tape, thread and cord, are all of the finest quality of linen. This provides strength, and resistance to atmospheric pollution.

Cases 10-15

THEMES FROM THE ICONOGRAPHIC COLLECTIONS

Case 10. The Raj

1. **The young lady's toilet (Anglo-Indians no. 2).** Lithograph by J. Bouvier after a drawing by W. Tayler, Bengal Civil Service, for Tayler's *Sketches illustrating the manners and customs of the Indians and Anglo-Indians*, London, 1842.

2. **The Bombay plague epidemic, 1896-1897:** (left) the Justices of the Peace conducting house-to-house visitation to discover cases of plague, April 1897; (right) whitewashing and disinfecting an infected house, February 1897. Photographs by F.B. Stewart, Poona, 1897.

3. **The Lady Hardinge Medical College for Women and Hospital, Delhi, 1921:** (left) operating theatre; and (right) outpatients' department. Photograph album 'presented to H.E. Lady Chelmsford by the Staff and Students ... on the occasion of her departure from India, as a small token of their appreciation of the interest she has shown in the College and of her many kindnesses' (inscription on fol. 2). Lady Chelmsford, the Vicereine, left India in 1921.

Case 11. From Old Japan

1. **Hua T'o operates on the warrior Kuan Kung** while the latter distracts his attention with a game of chess. Colour woodcut (left half of diptych).

2. **A mother breast-feeding her child.** Colour woodcut by Ichiyusai Kuniyoshi, 1842.

3. **Tametomo repels the personification of smallpox from the island of Oshima.** Colour woodcut by Yoshikazu [fl. 1850-1870].

Case 12. The French Engraved Portrait

1. **Satirical portrait of a physician with a chamber-pot:** transformation of an earlier engraved portrait of Philibert Emmanuel de Beaumanoir de Lavardin, Bishop of Le Mans. The face (without spectacles) by Robert Nanteuil, 1660; the remainder added anonymously c.1700.

2. **Francois Quesnay** [1694-1774], surgeon to Louis XIV, professor of surgery at Paris.

Engraving by J.G. Wille, 1747; after J. Chevallier, 1745.

3. **The family of Charles Patin:** Charles Patin [1633–1693], professor of surgery at Padua, with (left) his daughter Charlotte; (centre) his wife with portrait of her father-in-law Gui Patin; (right) his daughter Gabrielle. Engraving by J. Juster; after N. Jouvenet, 16th4.

Case 13. Allegory and Personification

1. **Allegory of fame and death:** 'the genius of Castiglione'.

Etching and engraving by Giovanni Battista Castiglione [before 1610?–1665], c. 1647?.

2. **Aesculapius (medicine) routing death; Ceres (nutrition) relieving hunger.**

Pen and ink and grey wash with white highlighting on blue paper by Jacques Charles Bordier du Bignon [1774–1846], 1822.

3. **Dropsy courting Consumption.**

Hand-coloured etching by Thomas Rowlandson [1756–1827], 1810.

Case 14. Researchers

1. **Work on penicillin at St Mary's Hospital Medical School, London, 1944.**

Lithograph by Ethel Gabain [1883–1950], 1944.

2. **Tropical sprue research team at Poona, 1945:** (right to left) Dr. D.A.K. (now Sir Douglas) Black; Paul Fourman; Dr. J.P. Bound; Kenneth D. Keele.

Pen and ink and watercolour cut-outs on paper by Ward, 1945. 'The artist Ward was a soldier who developed sprue himself and was a patient in the ward. The cartoon suddenly appeared on our desk one day' (Dr. J.P. Bound).

Case 15. Hospital Life

1. **Johannesburg Hospital, c. 1905:** operating theatre and radiography room.

Photograph album of Mrs. Magill, Superintendent of nurses, pp. 12–13 (presented by Mrs F.O. Billham, 1980).

2. **Le mérite des femmes, no. 9.**

Lithograph by Jean Pierre Moynet [1819–1876].

3. **The probationer who disagreed with the matron.**

Pen and ink and watercolour over pencil by H.M. Bateman [1887–1970].

Opposite Cases 1-5

1. **Thomas Garvine** [fl. 1713-1738], Ayrshire surgeon and traveller in Russia and China, wearing robes presented to him by the Emperor of China in 1716.

Oil-painting by William Mosman [Aberdeen, fl. 1731-1771].

2. **Anatomical figures.**

Oil-paintings by or in the style of Jacques Fabien Gautier d'Agoty [1710-1781].

Above Cases 10-15

3. **Occupations of the people of India.**

Watercolour, anonymous, 20th century.

4. **Fort (later Port) Simpson, British Columbia (in '1802'?).**

Oil-painting by Frederick Alexkcee [c.1853-1939]; n.d., before 19 April 1917 (date of purchase by Wellcome).

5. **Dr. John Coakley Lettsom [1744-1815] and his family in the garden of their house, Grove Hill, Camberwell.**

Oil-painting by an unidentified English painter, c.1786.

6. **An accouchement.**

Oil-painting attributed to Faustino Bocchi [1659-1741].

7. **Jean Hyacinthe Vincent** [1862-1950], bacteriologist, clinician and epidemiologist. 'Illustre savant, dont la gloire universelle projette sur la science française un éclat toujours plus vif' (Charles de Gaulle 28 December 1945).

Oil-painting by Edgar Aillet, 1935.

8. **Bethlem Hospital, Moorfields, London:** the building designed by Robert Hooke, F.R.S., completed in 1676, and used until 1815. Engraving by Robert White, 1677.

PUBLISHER'S NOTE

The text of this catalogue has been generated in-house by staff of the Wellcome Institute for the History of Medicine using IBM personal computers and a Hewlett Packard Series II Laserjet printer, in conjunction with Displaywrite III and Tex software.

